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## TESTS OF COLLEGE EFFICIENCY<sup>1</sup>

EDWIN F. GAY

Dean of the Graduate School of Business Administration, Harvard University

I am grateful to the secretary of the Carnegie Foundation for having cleared the way by his comprehensive, interesting, and hopeful survey of the tests of college efficiency. It makes it possible for me, with a clear conscience, to address myself in a general way to the popular guessing contest, "What is the matter with our colleges?"

I wish at the outset to state my concurrence with what has been said concerning the need and utility of the various tests of academic efficiency. I believe we should study such units as the "student-hour" and use these measurements and other business methods so far as they are applicable to our problem—and no farther. There is no doubt that there is need for a more intensive investigation of the work of the college student as related to his preparation for college and his subsequent career. But what I particularly wish to present here are some of the impressions I have received from contact with business men, and their attitude toward college; the views of business men who have not had the advantages of college education—or the disadvantages—as well as of those who are themselves graduates of colleges.

We find some business men who are deeply interested in vocational training, and they are frankly, not to say sharply, critical of our colleges because they think that the college is not doing its duty, is not providing an education of practical utility. I have here an address by a prominent banker of New York, much interested in educational problems. He sums up his view in this mild language: "Apart from the fact that the college does not teach young men anything that will be useful to them in business, my observation has made me suspect that it is deficient in another important particular," that is, that the young men are not taught

<sup>1</sup> An address delivered before the Harvard Teachers' Association, Cambridge, Massachusetts, March 9, 1912.

"accuracy, perseverance, and an insatiable appetite for hard work." A college student "is more likely to lose than to gain these qualities. . . . The college policy puts a premium on shiftlessness and inaccuracy." In conclusion, he advises the college students: "Let them study red-blooded men instead of fossils, manufacturing methods instead of archaeological specimens, accounting systems instead of Greek verbs; and I will guarantee that their material rewards, their scientific satisfaction, and their service to humanity will all increase." Now, there is much to justify this attitude, but in my opinion it is shortsighted. The business men who so harshly criticize college graduates tend to judge these awkward fledglings in the first few years after leaving college, the period of adjustment to new conditions, often the most unhappy time in the college graduate's career. They should, instead, pass their judgment on the man ten or twenty years after leaving college. I think, furthermore, that this whole question of what is or is not vocational in our college curriculum is often debated with too limited a vision of the demands which life makes upon a man. A sane and catholic mind, though developed by non-vocational studies, is of high practical value. The dispute reminds me of the experience, told by the Englishwoman who was for some time the physician of the old Emir of Afghanistan. She was a Presbyterian, and the Mohammedan Emir had long arguments with her on doctrinal points. One day when the controversy had been warm, the Emir pointed to a large and deep Chinese bowl which stood on the table between them, and asked her: "What do you see in that bowl?" She answered: "A flower, floating on green water." "No," he said, "I don't see that; I see a dragon, stretching its claws." He paused a moment, and then he said, "Perhaps, when we both are dead, we may see all of life and all of doctrine; we may look down and see that both of us are right."

The college course may well admit some measure of vocational training, and there ought to be more of the vocational spirit in the so-called liberal and cultural studies. But the college stands for what is finest and best worth preserving in our civilization. It aims to acquaint the young, to use Matthew Arnold's phrase, with the best that has been said or done. And I believe, therefore,

that the wholesale condemnation of this aim by one group of our critics among business men is shortsighted and narrow.

But it may well be questioned whether the college fulfils efficiently this purpose. One cannot but be impressed with the large number of college graduates—how large it is impossible to say—who have gone through college and who have come out failing to possess the chief thing that college ought to stimulate, and that is, a keen and abiding interest in things of the mind. College men sometimes say, for instance, "Philosophy? I had all that in college; I am through with that." This is not meant as a general indictment; but many, business men among them, think that college men too often fail to get from college what is best worth while. The fault is not wholly in the college training; it is in part due to the whole social environment. In a recent book on the history of intellectual development in Europe, Crozier asserts, perhaps too dogmatically, that one of the chief characteristics of the English-speaking peoples is their emphasis on character, as compared with German or French emphasis on intellect. This is a one-sided emphasis, and he urges with justice the desirability of a truer balance in the national ideal. The colleges, however, are to a certain extent responsible for the failure to arouse and stimulate intellectual interests, and one important reason, in my opinion, for this defect is the lack of personal relations between teachers and students under the modern development of the lecture system.

I am not an expert in educational history, but I have an impression that we have tended to follow the lead of the German universities in facing the problem of teaching an increasingly large number of students. The lecture method lay readily at hand; it had descended, old and well tried, from the mediaeval university, where it was adapted for the transmission of knowledge under the conditions of the time. It appeared to the nineteenth century a convenient method for imparting instruction to a large student-body, while at the same time the teacher was left comparatively free for what the Germans regarded as the chief thing—research. We in this country had the recitation system, a lean method of instruction, but nevertheless one that gave the teacher personal knowledge of the pupil. To meet our similar problem of large-

scale production, along with the ideal of research we imported also from Germany the lecture system. The lecture has its useful function as one of the tools of instruction, but we have tended to rely too exclusively upon it. And this method, used to excess, has separated teacher and student. The lecturer knows his students not as individuals but as units in an audience. That this condition must be changed is becoming generally recognized, and we are commencing to experiment tentatively with various devices to modify the lecture method. Some development of the tutorial system seems to be indicated as a partial remedy for a real defect in our present practice. We must find some way to break up the large lecture courses; some way to bring keen teachers and small groups of students together.

I should like to call attention to the signs of change here at Harvard. One of them is the movement which seeks to substitute as the degree requirement a final examination in subjects in place of the accumulation of marks in individual courses. This has recently been done in the two Graduate Schools of Divinity and Medicine. And a similar plan is being formulated for undergraduates in one of the most important groups of studies. Intimately bound up with this proposal is the need of personal guidance to students thus preparing for a final examination, and steps are being taken to provide for this need. We shall, I hope, develop a close relationship between competent teachers and smaller groups of students.

Despite all his criticism, we find the business man who has not been through college often thinking with regret of that loss in his career. He sometimes exaggerates his loss; he sometimes overestimates what the college can give. He dreams of the pot of gold at the foot of the rainbow. But the college man goes too far in his shattering of this imagination, when he says that one of the chief advantages of college is that it destroys his illusions as to the mysteries of learning. The pot of gold, it is true, is an illusion. But the treasure is there, and it is a pity to lose the zest of the search. Too many of our students, through lack of personal contact with inspired teachers, fail utterly to discover that what they supposed were arid wastes of learning are really gold-bearing sands.

## DISCUSSION

ROBERT F. HERRICK, Attorney at Law, Boston.—When I left home this morning, one of my children said, “You had better not go over there; you will get in too deep.” I was a little bit shaken by that, and now I know that she was right. The fact is, that I have learned one very good lesson: If you find anyone who has a tendency to criticize the methods of instruction in colleges, I would suggest that he be invited over here, be asked to listen, and then compelled to state his views.

It has been a great pleasure to hear so much about the work that is going on all over the country in the education of students, work that I know nothing about, and which most of the men I see know nothing about. I have had, however, a little feeling in regard to the effect of a college education on the men who enter business, and some of the professions: I have had a feeling that some things could be done toward making these men more effective. Professor Gay spoke about the pot of gold that the ordinary business man thinks he will find at the end of the rainbow, in college. I think it is actually there; it is actually there, in the shape of the spirit of the education. The men who graduate from college and go into business are always conscious of having found the pot of gold.

In Chicago, I had the good fortune to live among a large number of men, some of whom had been through college, some of them the ordinary schools. All were actually in business. The evenings I spent with one set of men were interesting; with the other set, dull. The college men had books, pictures, lamps, and so on; the other men seemed to live in a dreary sort of way, and not to know how on earth to amuse themselves. The life they had lived in college was a tremendous resource to the college men; a purely practical advantage of knowing how to have a better time; and they thoroughly appreciated it. They knew something about college life; they had found the pot of gold.

My feeling is that we could get what we do out of college, and just a little bit more. The typical college man is the best man to go into business. The men, when they are ready to graduate, as I find them, are fair, open-minded, industrious, very modest, with a keen sense of want of preparation for life, and a tremendous desire to learn, that is, to work; that is their attitude toward life, and it is very nearly perfect. If you compare it with the man not in college, I think you will find that the college man is far better adapted to go on in business life, and other phases of life, than the man who has not had that advantage. But they are to a great extent unready in *little* things, too. I think perhaps some of that want could be remedied. It has seemed to me that all through the education of boys in preparatory schools and colleges there was a lack of definiteness of aim as to what we are going to make out of them. If we are

going to speak of the efficiency of the education, we must have an idea of the kind of product we are trying to get. If you know nothing about the product aimed at you don't know whether the preparation is good. If you assume the object is to fit them for practical work, a good deal is left out that might be supplied. I do not think it is the fault of the teachers. It seems to me that at college it might be possible to bring about a situation whereby it would be possible to prepare these men, by some system, just a little better than they are prepared today. I had the advantage of going to the public schools of Boston, where I had a different kind of training. When I was fifteen, we were taught the elements of bookkeeping and the elements of civil government. When we graduated, at sixteen or seventeen, we had a fair idea of bookkeeping, business arithmetic, and quite a good idea of the working of the American government. I have found that one of my girls, of sixteen, is being taught the same in a girl's school. On the other hand, my boy who hopes to drift into college, knows nothing whatever about bookkeeping and business arithmetic, and has not the faintest idea of the Constitution of the United States, or anything else that has to do with civil government. I cannot help feeling that that might be remedied. Preparatory schools do not give some things that the public schools provide. The college-admission requirements do not encourage any such preparation.

I speak with great diffidence, because I do not know just what the college is doing. It is twenty-two years since I was here. That was at the height of the elective system; we were as free as we could be, and we chose our subjects with a magnificent disregard of any future. The distance of the recitation rooms from the places where we slept, and the number of stairs we had to climb, and all the details of our comfort were carefully considered by us. We made some combinations that have never been surpassed. And we performed a great service, by showing that you cannot entirely trust the students, but must aid them somewhat, in shaping their after-life.

My suggestion is, that perhaps that idea could be carried a little bit farther; and if, instead of relying entirely on the teachers to develop the man for after-life, the college could feel a duty to see that this man is turned out a little better prepared for after-life, it would be a good thing.

Many young graduates just getting ready to go into active life, business, banking, and so on, find that the business man has a feeling that they ought to make good, sooner, or later, but they are pretty unready now, and the business man himself is just a little bit shy of them; he is afraid they won't want to go to work soon enough, or hard enough; and perhaps the college man does not get quite the chance that the boy of a more rough and ready sort does.

My feeling is that it is a little of that readiness for work which the boy needs; it might be worked into the college education, so that these boys could be just a little bit more prepared for after-life. Of course, it is perfectly safe to assume some self-preparation in the case of technical schools like the Institute of Technology; but boys come to college with no idea of what they are

coming after, except that it is going to be a pleasant, comfortable time; and that somehow, somewhere, they are going to get something of advantage out of it. Frequently the boys' parents have no greater intellectual aspirations than the boys themselves; they simply send the boys here because it is the right thing to do. If the policy of the college is to take these boys just as they come, along with the ones who wish to study hard, that may be all right. But if its policy is to assume a duty toward these men, and toward the country and see to it that they are turned out better prepared for practical work, then the college will have done a great deal of good.

A man should not be able to graduate from Harvard College without some idea of the ordinary principles of business, the ordinary principles of political economy; so that, for instance, he should be able to discuss the strike at Lawrence with a certain amount of intelligence. When I was here, a man could have gone through with his eyes closed, and absolutely ignorant of many subjects most essential to a practical education.

STRATTON D. BROOKS, Superintendent of Schools, Boston.—Any test of college efficiency involves deciding, first, what is the purpose of college—what is it meant to accomplish. The point I wish to present is that the ultimate test of any college must be based on the service it renders to the community. The college life, whether cultural or specific, is aimed ultimately at service to the community, and any real test must be made with reference to its effect on the community life, present and future. The colleges I have known most about have a magnificent effect on the high schools. Secondary education in this country has been materially improved by the college influence. It has been in the main an excellent influence. At any rate, any test of college efficiency ought to involve a test of whether its influence on the high schools has been good or bad, and that in turn goes back to the community because the high school is likewise in the service of the community. The colleges contribute much to the general ideals, to the life and to the vigor of the states and of the nation. In these lines its professors and its students render magnificent service, and in so far as they fail to render that service, the efficiency of the college individually is less.

The college renders magnificent service in its research work, material and intellectual; the advances in knowledge are carried forward largely by the research of colleges. The service rendered by some of the state universities is almost beyond estimating.

In testing the college efficiency, we must take into account the college deficiencies. The main problem today is what are the students doing? Standards perhaps would be applied to test the actual accomplishment of the student in the subject during the time in college when he is actually taking it; a magnificent test, provided the subject he takes, if he takes it, will do him any good after he gets it. Assume that the subjects are the proper ones, and that our standards show the students' attainment in them; there still remains the



test of applicability to the service of the community. That brings in the important element of time. When will he do the most good? When ought his efficiency to be tested? What is the time when we can determine best whether he is well trained or not? Is it at graduation or ten years later? The same problem confronts the elementary schools. We omit certain things today in the elementary-school course of study. We deliberately sacrifice the immediate efficiency of the pupil for the sake of his efficiency ten years after he graduates. But we are tested by the public the day the pupil comes out of school. The schools are criticized because we have failed to add a dollar a week to the earning power of a fourteen-year-old child for the sake of adding much more when he is twenty-five. In fact, we can say that any education that can make a fourteen-year-old boy worth a dollar a week more at that age will make him worth ten dollars a week *less* when he is twenty-five years old.

In college, if we put too much emphasis on restricted, specific education, aimed at a particular vocation, we are very likely to tie the man's mind up; we are apt to prevent that expansive habit of mind which will supply the dream and interpret it. Specific education is perhaps illustrated by this story with which I hope to close:

A man stuttered a great deal; he was told of a certain specialist who could cure him; so he went to the specialist, and the specialist said, "What you want to do is to learn a specific and particular thing, and repeat that." And he began with "Peter Piper —" and all the rest of it. After the specified course of training, he could repeat the sentence without a stutter. His friends said, "That is magnificent! That is one of the results of specialization!" He said, "Yes! B-b-b-but I d-d-don't see how I c-c-c-can work it into a g-g-g-g-general c-c-c-conversation."